

Notice of Allowability

Application No.

10/667,311

Examiner

Tarifur R Chowdhury

Applicant(s)

HONG, HYUNG-KI

Art Unit

2871

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1-42.
3. ☒ The drawings filed on 23 September 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 09/23/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Allowable Subject Matter

1. Claims 1-42 are allowed.
2. The following is an examiner's statement of reasons for allowance:
3. As to claims 1 and 25, the prior arts of record do not anticipate or render obvious to one skilled in the art a liquid crystal display device and a method of manufacturing such a device comprising various elements as claimed, more specifically a second substrate having at least one pixel portion corresponding to the pixel region (only one sub-color filter forming each pixel region) of the first substrate, the pixel portion being divided into first and second areas; a first switching element and a second switching element corresponding to the first and second areas respectively; a first pixel electrode within the first area and a second pixel electrode within the second area; a first retardation layer having a first phase retardation value formed beneath the first pixel electrode; and a second retardation layer having a second phase retardation value different from the first phase retardation value formed beneath the second pixel electrode.
4. As to claims 13 and 34, the prior arts of record do not anticipate or render obvious to one skilled in the art a liquid crystal display device and a method of manufacturing such a device comprising various elements as claimed, more specifically first and second retardation layers beneath the first substrate, the first and second retardation layers each having different phase retardation values; a common electrode beneath the first and second retardation layers; a second substrate having at least one pixel portion corresponding to the pixel region (only one sub-color filter forming each

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pixel region) of the first substrate, the pixel portion divided into first and second areas, the first area corresponding to the first retardation layer and the second area corresponding to the second retardation layer ; first and second pixel electrodes on the second substrate, the first pixel electrode connected to the first switching element and the second pixel electrode connected to the second switching element.

5. US 2004/0125295 and USPAT 6,603,523 are related to a multi-domain liquid crystal display device wherein the first and second compensation films are formed outside surfaces of the first and second substrates. USPAT 6,784,963 is related to a multi-domain liquid crystal display device wherein the optical compensation plate formed between the liquid crystal layer and the second substrate has an optical axis horizontal to the first and second substrates. USPAT 6,169,590 is related to a multi-colored pixel for a liquid crystal display including red, green and blue subpixels, wherein each sub-pixel includes a pair of substrates, a pair of polarizers, opposing electrodes, and a color personalized retardation film, which compensates for the different wavelength of each color. However, all of the prior arts alone or in combination with any other prior arts fail to teach or suggest the claimed liquid crystal display device.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

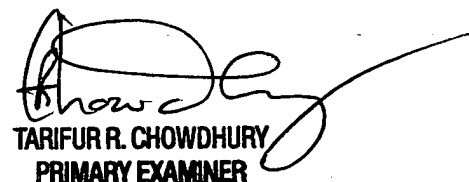
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (571) 272-2287. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRC
December 20, 2004



TARIFUR R. CHOWDHURY
PRIMARY EXAMINER